

The American Observer

A free, virtuous, and enlightened people must know well the great principles and causes on which their happiness depends. -- James Monroe

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Soviets Relying On Siberian Resources

Secondary Bases Beyond Moscow Have Been Built for Use During Emergency

PROGRESS HAS BEEN SLOW

Report Indicates Siberian Fuel and Metal Industries Lag, but Good Start Has Been Made

Although the Red Army seemed to be holding back the Germans all along the line, last week, Premier Josef Stalin addressed a significant appeal to all Soviet peoples. Those in regions already occupied by the Germans he called upon to organize guerrilla bands "mounted and afoot" to do what damage behind the lines they could. Those in the path of the invasion he ordered to burn or otherwise destroy crops, forests, machinery, and farms, and to carry away with them all movable equipment, food-stuffs, and livestock. Nothing of value, he said, should be left behind to fall into German hands.

The policy urged by Stalin is not new. Russians have many times purposely laid waste their own cities and towns to keep them from falling to enemy invaders, notably during Napoleon's invasion in 1812. It is also the policy of "scorched earth" adopted by the Chinese in the face of the invasion by the Japanese. There are some observers, in fact, who see an interesting parallel between the Russo-German and the Sino-Japanese wars. Russia, like China, is a big sprawling power facing a smaller but determined and highly organized assailant. The Russians, like the Chinese, have been falling back toward a vast hinterland, scorched the earth behind them.

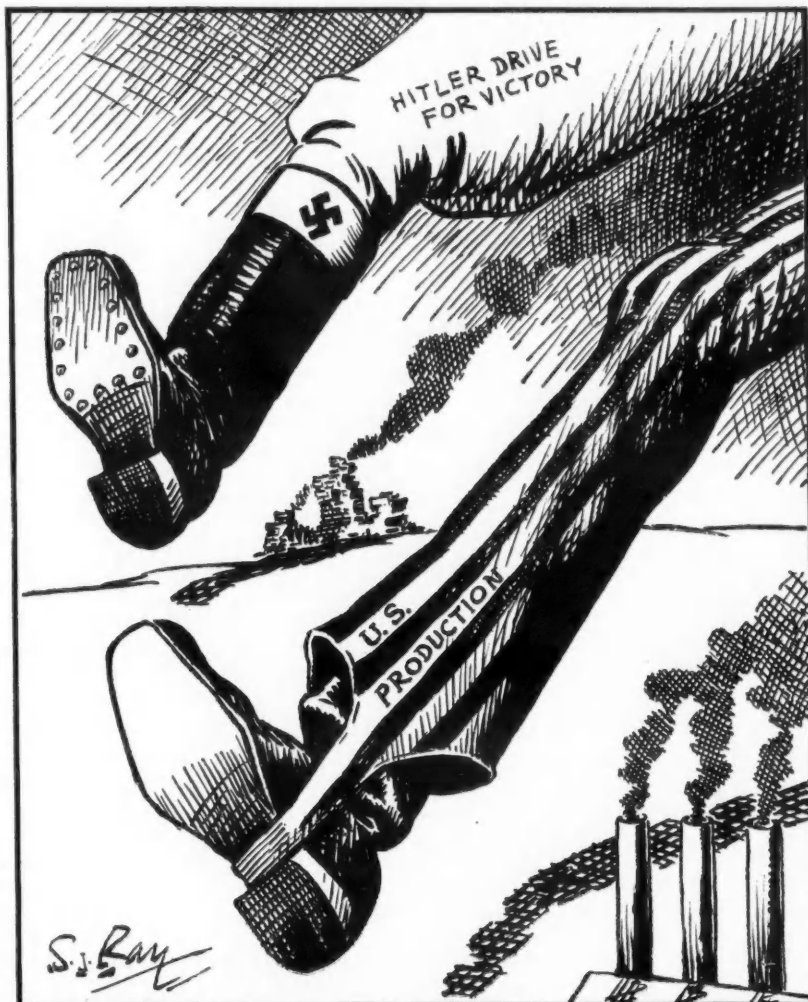
Beyond the Urals

Generally speaking, the commercial and industrial "life line" of European Russia lies along a diagonal drawn from Leningrad southeastward through Moscow and on down to the mouths of the Volga on the Caspian Sea. If the Germans should this summer push forward to this still-distant line, occupying the granaries of the Ukraine, the industrial and metallurgical centers of the Don Basin, and the oil fields of the Caucasus, whether the Soviets could survive politically and carry on the war as the Chinese have done would depend in a large measure on the secondary bases of industry and commerce which have been built near and beyond the Ural Mountains in Siberia.

Uttered within hearing of an average individual whose interest in geography has been casual, the word "Siberia" conjures up a picture of a land which is vast, remote, bitterly cold, snowy, and which is, or was, sparsely settled by convicts, hungry wolves, and large white bears. This picture is a little deceptive, though not altogether so. The land—embracing an area two-thirds again the size of the United States—is certainly vast. The *taiga*, the great Siberian forest, alone covers an area 4,600 miles long, and from 600 to 1,300 miles deep. And the fastest express of the Transiberian Railway, speeding from Moscow across Europe and Asia to the Pacific port of Vladivostok, is nine or 10 days in transit.

With no wall of mountains along its Arctic rim to keep off the polar air masses, Siberia does indeed become very cold in the winter. The northern region is frozen over nine months in the year, and most of Siberia experiences at least six solid

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INTO THE HOME STRETCH

RAY IN KANSAS CITY STAR

Too Lazy: Too Late

(From an editorial in the New York Times—July 6, 1941)

To describe the attraction that totalitarian government holds for many people, let us use Jacques Barzun's phrase: "the lazy security of regimentation." People who are bewildered by the uncertainties of politics and economics feel secure if they can leave crucial decisions to a national leader and take orders from him. But the illusion of lazy security is not peculiar to totalitarian states. Although it does not derive from regimentation in the United States, it derives from unwillingness to face ugly facts, and that enervated state of mind is merely a different aspect of the same moral degeneration. After eight years of Hitler and nearly two years of his swift, dynamic warfare many Americans still feel lazily secure behind the moat of the Atlantic and Pacific Oceans. Their imaginations are torpid. As they go about their daily affairs amid familiar surroundings, they feel comfortably sheltered from the world hurricane.

When the history of this era is written—by free historians, if we are lucky—the sluggish thinking of free people will be one of the hardest phenomena to explain. In the totalitarian states, which have been conditioned by suppression of news and unscrupulous propaganda, the lethargy of public opinion is easy to understand. Although large numbers of German people must realize now that they have been recklessly misled, no one expects them to plunge their country into disaster by renouncing a government that appears to be winning.

But the American public has had access to the truth from the beginning. Unlike the first World War, this one has come about after a long prelude of extensive publicity. It seems almost incredible that what Hitler has wanted and how he has intended to get it has stood in print for years under his own signature. And there has never been a time when the American press has been so abundantly served by so many able foreign correspondents, most of whom have long been aware of the threat of Hitlerism to free institutions everywhere.

In America we have had more devastating evidence than that to strengthen our minds. We have seen how complacently England contemplated German and Italian nihilism in the early years of the crisis and how she lost ground at every step until the day of bitter awakening. It has taken a year of tragic humiliation to show how thoroughly the national spirit of France had been poisoned by politics. We have seen the policy of caution fail in the Low Countries and the policy of bravery without equipment fail in Greece. In the case of Russia we have seen how treacherously Hitler has reversed himself on two sensational occasions. His advance men—those heralds of doom—have been at work in North and South America for a long time, sowing discord and confusion by methods familiar in countries that have already been murdered. He has even stated his intentions toward democracy. Discussing democracy in relation to Nazism, he has shouted in public: "We can never be reconciled to this world. One of these worlds must break asunder." Moreover, our military experts know how, in certain possible circumstances, the Western Hemisphere can be invaded by German forces through Dakar or

(Concluded on page 8, column 4)

Criticisms Voiced Of Defense Program

House Committee Report Lists Mistakes in Early Stages of Defense Effort

NATION LACKED FORESIGHT

But Despite Errors Progress Has Been Great and Huge Program Is About to Go into High Gear

Two views of the national defense program are being widely circulated at present. One pictures it as badly planned, poorly organized, and bogging down helplessly in a morass of inefficiency. The other paints it as remarkably successful, an achievement worthy of American enterprise, a true "miracle of the industrial age." These views are diametrically opposed, but there is some truth in each of them. In searching for that truth, it must be remembered that the United States, always unprepared for war, was entirely unready for the epoch that dawned when Hitler smashed the French and British lines in the spring of 1940.

Now, more than a year later, our Army is still unprepared. Most high-ranking officers consider that we do not have a single division ready for war. Certainly we do not have a single division which is as well equipped as the majority of the German divisions. We have no heavy tanks at all and no new medium tanks. While Germany has at least 13 armored divisions, we have only four, and these cannot possibly be fully equipped before next March. Our artillery is quite inadequate. The Battle of France showed that the French 75 is no match for the German 105-millimeter gun, but we must continue to use the 75 until enough of the heavier weapons can be built. Worse, most of our 75's were sent to Britain, and most of those sent have now been captured by the Germans. Antiaircraft artillery of all kinds is badly needed, and in heavy artillery we must get along indefinitely with guns of World War vintage.

Half-Armed

The most optimistic thing that can be said of the Army is that it will soon be about half-armed. Just now the morale of the men, as well as their training, is reported to be suffering because of the shortage of modern equipment. Lack of equipment or lack of vision—opinion is divided as to which is chiefly responsible—seems to have directed the preparation of the new Army into channels which might have sufficed for a 1917 war, but which are entirely unsuitable for blitzkrieg days. The officers themselves have not been trained in mechanized warfare, and the War Department believes that between one and two per cent of them are incapable of learning. The Army has requested legislation which will permit a general weeding out of incompetent officers.

The weakest branch of the Army is the air corps. It is particularly weak in the types of planes needed for supporting ground forces. It has only a few modern attack planes or light bombers intended especially for action against troops on the ground. Until last month it did not have one dive bomber. Many of its planes have faults which should be removed at once.

The Navy is much better prepared than the Army. Thanks largely to the personal interest of President Roosevelt, it has been growing since the first year of his administration. Nevertheless, the two-ocean Navy provided for by Congress last

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A FREIGHTER PASSES THROUGH A LOCK IN THE PANAMA CANAL

Historical Backgrounds

By David S. Muzzey and Paul D. Miller

The Building of the Panama Canal

AT a time when it is difficult to say whether the more immediate threat to the security of the United States comes from Europe or from Asia, Americans may well be grateful to the men who built a bridge of water across the Isthmus of Panama. In 1898, during the war with Spain, it took the fast cruiser *Oregon* 90 days to sail around South America from the Pacific to the Caribbean Sea where she was needed. The anxiety felt in the United States during those three months had much to do with the building of the canal.



DAVID S. MUZZEY

Though we now have an Atlantic as well as a Pacific fleet, the naval forces which guard the east coast are small compared with those in the west. Most of our warships are based at the Hawaiian Islands, since we are still relying mainly on the British fleet to safeguard our interests in the Atlantic. But if Britain should do down to defeat and Germany should suddenly emerge as a naval power in the Atlantic, we might find it necessary to do some rapid shuttling from one ocean to the other to protect ourselves in both.

It was the dangers of war, rather than the profits of peace, which led Theodore Roosevelt and other advocates of the canal to push the project through Congress and start the great shovels digging at the Isthmus. And it was while Europe's guns were blazing in the opening engagements of the World War that the 9,000-ton freighter *Ancon* sailed through the Big Ditch to prove that the oceans were united. That day in August 1914, the water distance between San Francisco and New York was shortened by 7,893 miles.

Swamp and Jungle

Today's visitors to the Canal Zone could never realize from what they see the complexity of the problem that faced engineers when swamp, jungle, sliding mountain, and mosquito were all united in holding back the construction of the canal. It is even hard for visitors who have done considerable reading about the building of the canal to understand what a gigantic project it was.

The first to attempt to build a canal across the Isthmus was the 70-year-old French Count Ferdinand de Lesseps, builder of the Suez Canal. He went to work in 1880, and found conditions much different from those he had encountered in Africa. At Panama he found mountains instead of level desert and rock instead of sand. Malaria and yellow fever killed his workmen by the hundreds, and after eight years his company went into bankruptcy.

The French then offered to sell their

rights to the United States, but Colombia owned the Isthmus of Panama at that time and refused to agree to the transfer without generous compensation. The matter was settled in November 1903, by the province of Panama's rising in bloodless revolt, the landing of a few American marines "to restore order," and the United States' prompt recognition of an independent and friendly Panama. President Theodore Roosevelt stoutly denied any part in Panama's revolution, but in the administration of Woodrow Wilson our country paid Colombia \$25,000,000 in the effort to promote friendlier relations and to wipe out any possible injustice.

Gorgas and Goethals

In May 1904, the United States took over the Canal Zone leased from the new Republic of Panama, and the great project was soon under way. In the long roll of those who contributed their best effort to the task, three names stand out above all others. Colonel William C. Gorgas of the Medical Corps wiped out yellow fever and greatly reduced malaria. Two chief engineers distinguished themselves in the construction work: John F. Stevens, a railroad man, and his successor, Colonel George W. Goethals of the Corps of Engineers.

Following almost exactly the route marked out by a Spaniard in 1534 and the plan suggested by a French engineer in 1879, the Americans dug out nearly 414,000,000 cubic yards of earth, built three sets of the largest locks in the world, and raised at Gatun a dam 71 times the bulk of the Egyptian pyramid of Cheops to hold back an artificial lake as extensive as Lake Geneva in Switzerland.

On August 15, 1914, the cement carrier *Ancon* carried 200 officials and their guests from one side of the Isthmus to the other. But the slides that had already caused so much trouble continued for some time, and it was not until 1920 that President Wilson officially declared the Panama Canal complete and ready for uninterrupted action.

Today, of course, every known precaution is being taken to protect the canal from foreign attack, particularly from bombing raids. Many of the safeguards which are being set up are military secrets and are unknown to the outside world. But great sums of money are being spent in the attempt to make this invaluable waterway impregnable against enemies.

Perhaps of greatest importance, the United States is building up strong defense bases on the chain of islands which stretch from the tip of Florida to the coast of South America and which guard the Atlantic approaches to the canal. Some of these bases, such as those at Cuba, Puerto Rico, the Virgin Islands, and the Canal Zone itself, belong to the United States and are already well fortified. Others have been leased from Britain. They are being built up as rapidly as the work can be carried out.

Schools Should Lay Emphasis on Health Education, Author Holds

MARK TWAIN told only half the story when he said, "Everyone ought to have a few bad habits so he can give them up when he gets sick. That will help him get well."

Dr. C. Ward Crampton tells the other half in his recent little book, *Start Today!* (New York: A. S. Barnes, \$1.75). He points out that bad habits may be given up somewhat easily, but the difficulty begins when a person tries to get rid of the damage the bad habit has caused. In the case of young people the results from bad habits are not necessarily permanent. Round shoulders, crooked backs, and hollow chests can be greatly improved. In his book Dr. Crampton recommends exercises that will help overcome these as well as many other physical defects.

He wastes no words in informing the reader that Americans are not fit. He says, "We are as far behind in physical fitness as in tanks and airplanes." Our failure may be blamed partly on the American's attitude of superiority. The average American feels that he can do anything as well as, if not better than, anyone else in the world, whether he has tried it or not. Many American athletes do hold world records, but we as a people take most of our exercise on the sidelines watching others play games.

"Second-Hand Heroes"

"We attend baseball games, athletic meets, and boxing tournaments, and we see great deeds of thrilling manly prowess. We go away feeling that we did it ourselves, that we ran, jumped, fought, struggled, and won. We are the heroes! We get a similar thrill and satisfaction listening to the radio or reading the brilliant accounts in the newspapers. We are second-hand heroes!"

The author also thinks that many high schools spend too much time on varsity basketball and football teams, where "a dozen boys get all the training, all the others get the thrills." He believes in games and encourages everyone to play more of them. But he insists that schools should emphasize physical training and health education for all students, rather than for a "handful of selected athletes to dazzle and delude the parents and the public."

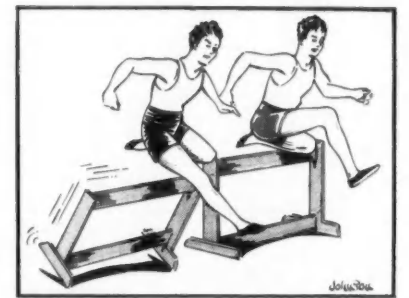
Because health education for everyone has not been taken seriously, the young people of America are below standard in physical fitness. According to school reports, many students have physical defects

ularly to Army officers, physicians, and teachers of physical education, it is actually a complete guide for anyone interested in physical fitness. It does not recommend any queer foods or eating habits; neither does it advocate exercises that are more torture than fun. This is a book based on good sense and good science. "Science," says the author, "is only Nature using her brains."

The first stop on Dr. Crampton's road to physical fitness is a doctor's office for a thorough physical examination. This examination is important, as some defects require medical attention rather than exercise. When the physical examination has been completed, you are ready to begin the course of seven exercises.

Exercises

The course begins in bed in the morning. Dr. Crampton knows people too well to



We should keep ourselves in good physical trim

expect to find them in the middle of their bedrooms facing a radio early in the morning, pajama-clad, and wreathed in smiles. "I have found," he observes, "that even the best of exercises have very little effect when they are not done."

Even though these exercises are not complicated, the author devotes an entire chapter to each. In ordinary language, aided by diagrams, he explains just how each exercise is done and what effect it has upon the body. The book also includes many practical suggestions on diet.

Start Today! is a helpful guidebook to personal fitness, regardless of one's age or occupation. Nothing unnatural is recommended. Dr. Crampton thinks that modern life is artificial at best, and has written this book to show us how we can cooperate with Nature for better health.

Battle of Production

Members of the National League of Women Voters in 1,500 communities from coast to coast have joined forces to help win the battle of production in which the United States is engaged. To arouse public sentiment in full support of the national defense effort, they are using every possible means of influencing public opinion.

The women are calling for national unity through leaflets distributed along milk routes and in laundry packages. They are passing out patriotic window stickers for cars, homes, and office buildings. Billboards, posters, radio programs, movie shorts, and window displays are carrying the messages.

League members have appeared at an American Youth Congress session in Maryland, a longshoremen's meeting in Oregon, and the convention of Rotary International in Colorado to pass out handbills and pamphlets. A speakers' bureau was set up in Illinois, and various business firms in Michigan and Colorado were induced to send the league's publicity in their regular mail. Backing for defense production was sought in a house-to-house campaign waged in Indianapolis. In these and other regions, the league members are going about their efforts to stimulate more intense backing for defense because they recognize that while war itself arouses great fervor, production is less spectacular. They hope, therefore, that they may help to raise the pitch of emotions to a level which will bring good results in this battle of production.



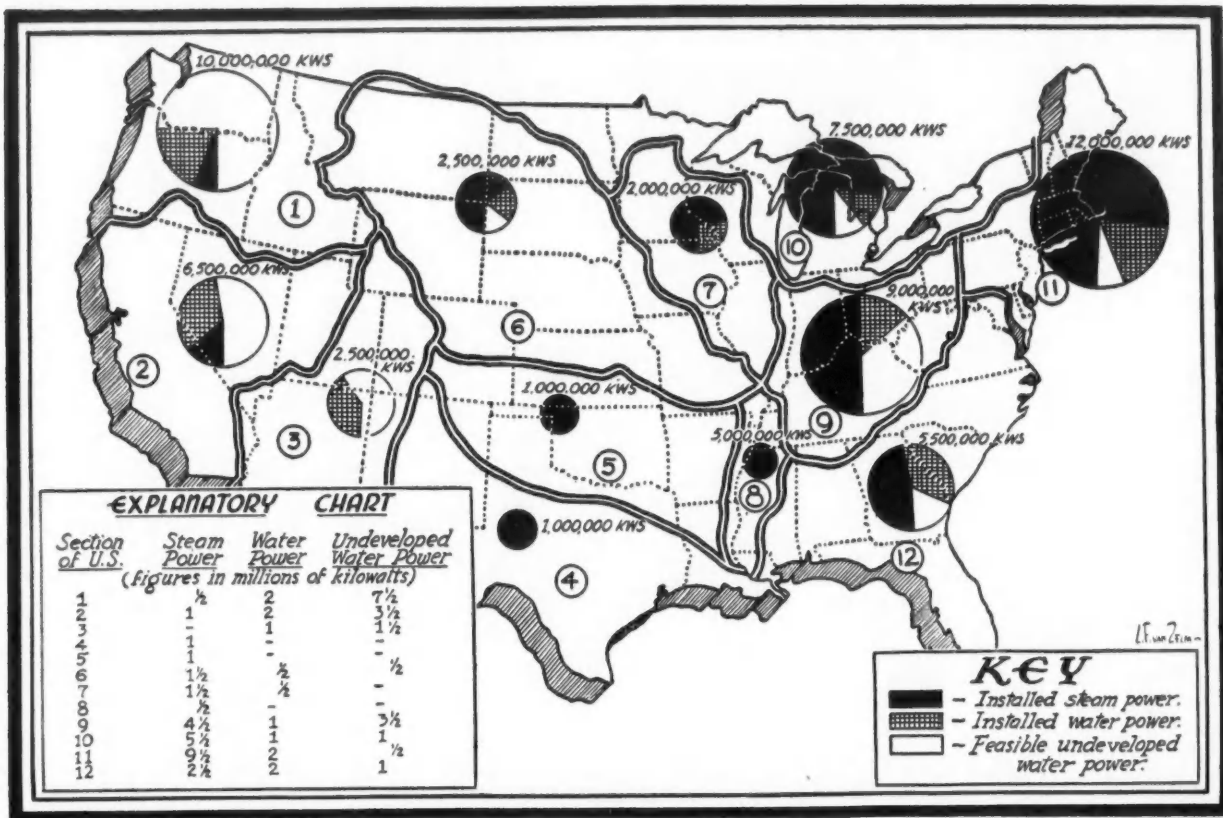
A thorough medical examination is essential to good health

that can be remedied through health education.

As proof that young Americans are below par, the author quotes President Roosevelt. Early in 1940 the President saw the National Guard in maneuvers. When these were over, he said, "America is soft. If we are to survive, we cannot be soft in a world in which there are dangers—dangers which threaten America, dangers far more deadly than were those the pioneers had to face."

As further proof, Dr. Crampton presents some Army statistics, which are far from encouraging. In the Second Corps Area 32 per cent of the men examined were rejected. The Draft Board over the entire country rejected 25 per cent, while the United States Army regularly rejects 80 to 90 per cent of those who apply for training in aviation.

Although the book is addressed partic-



THE POWER RESOURCES OF THE UNITED STATES

COURTESY CHRISTIAN SCIENCE MONITOR

The Shortage of Electricity

ALTHOUGH the generating capacity of the country is greater than ever before, plants producing aluminum and magnesium are threatened with a shortage of electric power. The most serious shortage is in the southeastern states, where more than half the national supply of aluminum is made.

Making aluminum is very different from the usual processes followed in separating metals from their ores. Bauxite, from which aluminum is obtained, is not placed in a furnace and heated to a high temperature by means of coke, gas, or oil. Instead, it is made into a solution and placed in large metal tanks, where electric current is applied. The aluminum collects in the bottom and is drawn off from time to time.

The rearmament program takes every pound of aluminum produced. Much of it is used to build bombers and swift pursuit ships, whose place in modern warfare is apparent to even the most casual observer of the European conflict. Because aluminum depends upon it, any disturbance in the supply of electric power is serious.

To keep aluminum factories producing at capacity while new power stations are being constructed, the Federal Power Commission recently placed 17 states in a huge power pool. Through a series of power-line interconnections among power companies, municipal generating plants, and Rural Electrification Administration cooperatives, factories engaged in making defense articles will be able to draw upon generating stations many miles away. For instance, an aluminum plant in Georgia might need more power than its local station could provide at certain times during the day. Through the power hookup, the local station might secure additional supplies from generators at Cincinnati on the Ohio River.

Widespread Network

The network of lines will draw power from as far north as Illinois, as far west as Texas, and from Florida to the south. Other states whose equipment forms part of this unified power scheme are Virginia, West Virginia, North and South Carolina, Georgia, Alabama, Mississippi, Louisiana, Arkansas, Tennessee, Kentucky, Indiana, Ohio, and Pennsylvania.

Some of the interconnections will be made immediately, while others may require six months. The Commission's emergency measure, however, brings into the southeastern aluminum-producing area needed power "in a fraction of the time and at considerably less cost than would be required for the construction of equivalent generating capacity."

In the past few years reports of new power projects have occupied a prominent place in the news. The addition of Boulder Dam, the Tennessee Valley development, and Grand Coulee Dam to our power resources has raised the nation's production of electrical energy to 41,600,000 kilowatts per hour.

There are two factors, however, which offset this record figure, and which threaten an acute shortage of power. The drought prevalent throughout the southeast, but particularly in the Tennessee Valley, has lowered water reserves to dangerous levels. TVA officials report that only four months' water supply remains in the Valley's power dam reservoirs, while the supply usable for the generators at Norris Dam is half gone. At the same time the demands for power in defense industries have exceeded most estimates.

Other Plans

The Power Commission's plan followed closely the agreement entered into by South Carolina, Georgia, Alabama, and Mississippi late in June. At the request of the Office of Production Management, the people of these states voluntarily reduced the amounts of power used in industries not engaged in defense work. In a further effort to cooperate, some southern cities are partially blacked out each night. Individual citizens have cut down the number of ice cubes they use and practice other economies to save electricity. In its appeal to the people of the South, the OPM said that a pound of aluminum can be made with 10 kilowatts of electricity. If every user saves only that much, sufficient power will be released for the production of "millions of pounds of aluminum."

While these methods and others will help during the emergency period, new dams, power plants, and transmission lines are now under construction. Many others have been planned for the near future. Although the nation's weekly supply of electrical energy is already 15 per cent greater than it was last year, an increase of 7,200,000 kilowatts is scheduled for 1941 and 1942.

On June 13 the House of Representatives unanimously passed a bill appropriating \$40,000,000 for the TVA to construct additional generating equipment with a capacity of 570,000 kilowatts. By next February new Columbia River plants will provide an additional 500,000 kilowatts. The OPM recently requested Secretary of the Interior Ickes to increase the capacity of the hydroelectric dams under his control by 1,000,000 kilowatts. Should Congress approve construction of the St. Lawrence Waterway,

as the President recommended in a recent message, another 1,650,000 kilowatts would be created. Among private utility companies, the Alabama Power Company plans to install a new 60,000-kilowatt unit at one of its generating stations.

These installations, however, cannot help in the present emergency. The country will have to use its present supplies of power as wisely as possible. Even with the best of planning, the government will probably have to ration power to manufacturers.

As a conservation measure Secretary Ickes suggests that Congress place the entire nation on daylight saving time. Others think that large ocean liners could be used to generate electricity. During a power shortage several years ago, the U. S. S. *Lexington* anchored offshore at Seattle, Washington, and supplied current to homes and industries. The French ship *Nor-*

mandie, now in the hands of the government, has generators powerful enough to light up the whole city of Mobile, Alabama.

What will be the after effects of the great expansion of the electric power industry? After the defense emergency is over, will the country be dotted with "ghost plants" like the Muscle Shoals project after the last war?

Power experts do not think so. They say the airplane industry is an infant that is bound to grow whether the nation is at war or at peace. As long as aluminum and magnesium are needed in aircraft construction, electric power will be increasingly important.

Furs from the South

Whether or not it can be regarded as an essential defense industry, the import, manufacture, and distribution of women's wear and cosmetics is responsible for an enormous volume of business in the United States. Newspapers devote their best advertising space to it, and department stores their best window displays. Even in a semidepression year, such as 1937, the value of dresses manufactured in the United States reached \$605,385,091, the value of furs, a relatively minor item, \$155,504,984. The volume of this business is also reflected in imports, the year 1939 alone seeing \$55,500,000 worth of furs imported into this country.

Since the collapse of the European luxury industries and the abdication of Paris as the fashion center of the world, American officials have been striving to shift this lucrative trade to Latin America. There have been many obstacles. Shipping space is difficult to find, and so are Latin Americans with enough money to buy American-made products.

Despite these difficulties, however, a bustling fur trade has sprung up between North and South America. The flow is northward. Vicuña from the patient llamas of the Andes, zorritos from mountain leopards, ocelot, and coney, and several other types of furs and skins are finding their way into American shops in increasing quantities. A good example may be found in nutria, which has been fairly popular in Europe, but until recently seldom used in North America. Two years ago we purchased only 30,000 skins from Uruguay, Argentina, Brazil, and Chile. In the first three months of this year our purchases in Argentina alone topped this by 13,000, trade with the entire region having increased by 260 per cent.

SMILES

"Yes," said the camouflage artist modestly, "I camouflaged my own residence three months ago and the landlord hasn't been around since. He can't find the house."

—TELEPHONE TOPICS

She'd stood about as much as she could, but her enthusiastic partner, a soldier, seemed ready to go on forever. At last she became desperate.

"What's the difference between dancing and marching?" she asked him.

"I don't know," he replied. "I thought so!" she snapped. "Shall we sit down for a while?" —WALL STREET JOURNAL

Three men were sitting on a park bench in Germany. One, who was reading a paper, finished an article, looked up, and said, "Tsk, ts."

The second man looked over, read the article, and he, too, said, "Tsk, ts."

The third man stood up and said, "If you guys are going to talk politics, I'm leaving."

—AUTOMATIC WORLD

Threads of rayon have replaced silk in the well-known dollar bill. However, the old parting advice still holds, "Don't take any plastic nickels."

—DETROIT NEWS

"Did your son go through college?"

"Not quite. He took chemistry, and he only got as far as the roof."

—SELECTED

Plumber: "But why do you want such a big sink?"

Man: "Well, you see, when my wife leaves in the summer she's generally gone a whole month."

—CAPPER'S WEEKLY

Customer: "I wish to buy an appropriate gift—something timely and striking."

Merchant: "How about a nice clock?"

—PATHFINDER

Executive: "Young man, my time is worth exactly \$100 a minute, but I believe I can give you a 10-minute interview."

Youthful Salesman: "Make it five minutes, sir, and I'll take cash for the other five."

—SELECTED

"Now, you men," roared the officer, as he dismissed the company, "you will parade again at 2 o'clock precisely. And when I say 2 o'clock precisely, I don't mean five past. I mean five to."

—TID-BITS

Peddler: "Any laces, needles, buckles, ribbons, pins?"

Housewife: "Go away, or I'll call the police."

Peddler: "Here you are—police whistles, 10 cents each."

—MONTREAL STAR



"Hereafter, I suggest we don't employ any former cops as waiters."

—HUFFINE IN COLLIER'S

The Week at Home

Iceland Occupied

Just 939 years ago Icelanders under Leif Ericson came to America. Now American seafaring men are returning the goodwill visit, occupying Iceland by order of their President and at the invitation of the Icelandic Republic. The bluejackets and marines who form the vanguard of the American occupation will find the country a land of little ice (in summer), few natural advantages, no jails, no beggars, and no illiteracy.

Though about the size of Kentucky, the island has only 120,000 people, almost all of them Scandinavian by descent. Mountains, lava fields, and glaciers cover three-fourths of the area, and only about one-half of one per cent is cultivated. Agriculture supports 36 per cent of the population, and fishing nearly 30 per cent. The sturdy, independent Icelanders declared their country a republic only last May, but it is considered the oldest democracy in the world, having a parliament which dates from far back in the Dark Ages.

Iceland's position is a strategic one, for the island lies 200 miles from American-occupied Greenland, less than 700 miles from German-occupied Norway, and not much more than 500 miles from Scotland. It has no army or navy of its own, and in April 1940, it was occupied by British forces which eventually numbered from 60,000 to 80,000 men. These will become available for use elsewhere as they are gradually replaced by Americans.

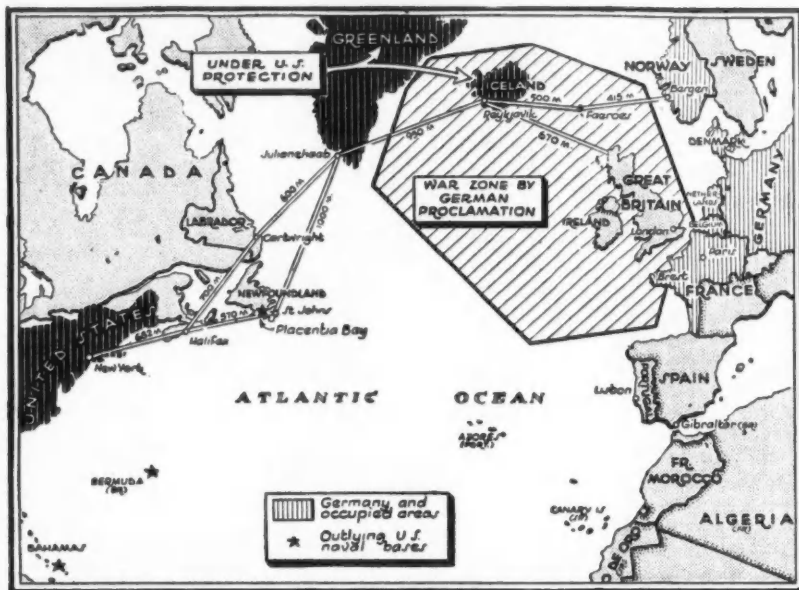
The President justified the move by pointing out that German occupation of Iceland would constitute a triple threat to the United States. It would endanger Greenland and northern North America, threaten all shipping in the North Atlantic, and jeopardize the flow of munitions to Britain, he said.

It is recognized, of course, that the occupation may involve this country in the "shooting war." Iceland lies within the war zone established by Germany, and during the past months shots have occasionally been exchanged by German reconnaissance planes and British troops on the island. Also, President Roosevelt has ordered the Navy to insure the safety of ships sailing between the United States and Iceland, and this may lead to active participation in the Battle of the Atlantic.

Miniature Aviation

United States Army officers were on hand in Chicago not long ago to observe the annual model airplane championship meet. Their presence was evidence of the fact that model plane builders sometimes produce designs which foretell future trends in aviation.

The air corps itself employs model-sized planes, some of which weigh up to 75



THE UNITED STATES EXTENDS ITS DEFENSE LINE TO ICELAND

pounds. With these, they experiment endlessly to test out drawing-board ideas which may someday be built into actual military aircraft. Although amateur builders are restricted to a maximum weight of 15 pounds apiece in their models, they, too, are able to produce many advanced designs.

One of the planes which attracted a great deal of attention in Chicago was a motor-powered craft whose entire flight, complete with difficult maneuvers, was controlled from the ground by short-wave radio. The radio sent impulses which, when received on the plane, pulled levers to operate the controls. Another model craft, with a wingspread of nearly 15 feet, executed a loop and a power dive while controlled by radio.

Aid to Britain

Out of the fog of mystery that necessarily enshrouds the sending of arms to Britain, interesting facts are now and then permitted to emerge.

Last week it was revealed that from 20 to 25 ships a month are making the tedious 100-day voyage from the United States to the Red Sea for the purpose of bolstering with their cargoes of munitions the British defense of the Middle East. These cargoes include planes, 13-ton tanks, light artillery, and ammunition.

The "ferrying" of bombers across the Atlantic is coming along well, too. Deliveries were slow at first, but pilots engaged in the work say that now it is not unusual to see several score bombing planes take off in one day from the great airport at Hatties' Camp, Newfoundland.

The flight to Britain takes from seven and a half to 10 hours and is remarkably safe. It is said that so far not a single ferry pilot has been attacked by a German plane. "The way we slip into Britain at varying altitudes and times each trip," one of the pilots commented recently, "would make it almost a miracle for any German fighter pilot to accomplish an interception."

King Cotton

American cotton growers were encouraged not long ago by Britain's announcement that she has shipping space available to carry 20,000 bales of cotton a month from the United States until a total of 600,000 bales have been purchased. So, too, was the general public cheered up, for the news gave some hope that the strain on Britain's shipping in the Atlantic was easing up, making it possible for her to fill at least a portion of cargo space with items other than food and instruments of war.

The fact that the development was received so joyfully by cotton growers, however, gave some indication of their otherwise gloomy mood. For although 600,000 bales is no inconsiderable amount of cotton, it is but a fraction of the exports in former years. In those times, exports rarely fell below 5,000,000 bales a year.

American cotton exports since those years have had a struggle to hold out against rising foreign competition. The prices insured by our domestic agricultural programs have been higher than the prices for foreign-produced cotton, and some ground was lost there. Export subsidies, however, managed to make up for part of this. In fact, 1939-1940 was the best export year in some time, with 6,192,000 bales being shipped out of this country.

The final blow was dealt by the ruinous effects of war on trade and shipping. Consequently, against an export of 1,110,000 bales in 1940-1941, the sale of 600,000 bales to Britain now looms large. Nevertheless, it will scarcely make a dent in the present estimated carryover of 12,600,000 bales.

Automobiles

The automobile industry expected to cut its output by 20 per cent, but it has been told by William S. Knudsen, director general of the Office of Production Management, to forget all about that and begin thinking along more generous lines. The industry is likely to be called upon to handle defense orders amounting to three times the present total, and this may mean that motor-car production will drop from the 5,000,000 units estimated for 1941 to only 3,000,000 or even 2,000,000 units.

What will a curtailment of automobiles and perhaps gasoline and tires do to the

country's motor habits? Some basis for an answer to this question is furnished by a survey which the Automobile Manufacturers Association has just completed. After tabulating information supplied by 76,000 car owners in six states and supplementing it with figures from the road-use reports of 29 other states, the survey came to some interesting conclusions. It found that half of all automobile mileage and three-fourths of all trips can be classified as necessity driving. Three-fourths of all long trips are for recreational purposes.

Age statistics should console the motorist who cannot afford a new car, for they prove that he has plenty of company and that there are probably a good many cars on the road older than his. Of all cars registered on the first of July last year, 25 per cent were nine years old or older, and six per cent were 12 years of age or more.

Warden Lawes

When Lewis E. Lawes arrived in Ossining, New York, on a cold, midwinter day in 1920, it was a current joke that the quickest way for a man to get out of Sing Sing prison was to come in as warden. Up to that time, the average tenure for wardens had been 11 months, much to the disgust of Governor Alfred E. Smith, who was turning the job over to Lawes. Smith's choice of a man turned out to be a good one, because Lawes is only now retiring, at the age of 57, after 21 years at the head of Sing Sing.

During that time, Lawes has become the nation's most famous penologist, and one of its most capable as well. Books and magazine articles from his pen and

many public speeches, while adding to his reputation, have focused national attention on the problems of crime and punishment as few other men have been able to do. Ironically enough, Lawes has campaigned long and hard against capital punishment, although



LEWIS E. LAWES

he has been compelled to direct the executions of more than 300 wrongdoers. On many of these occasions, however, he has immediately renewed his charge that society itself has been at fault in permitting basic causes of crime to exist.

Although he was not able to do away with capital punishment in Sing Sing, Lawes did institute a number of reforms. On the one hand, he tightened down on the laxity which had permitted numerous prison breaks, but on the other hand he gave prisoners unusual liberties within the walls. He introduced a general program of sports, and tried in many ways to win the men's cooperation in rehabilitating themselves.

Lawes, who now has a number of offers to write and to enter the radio and motion-picture fields, has been engaged in prison work for 36 years. The son of a reformatory employee, he worked up through the state prison system to his post at Sing Sing.



HONOR TO A GREAT ATHLETE

Scene at Yankee Stadium in New York as a monument to the late Lou Gehrig, great Yankee star, was unveiled. Left to right: Mayor LaGuardia, Mrs. Lou Gehrig, Catcher Bill Dickey of the Yanks, and Manager Joe McCarthy.

The Week Abroad

Border War

Ecuador, which seems to have been driven like a wedge into the Pacific coast of South America between Colombia and Peru, is one of the least advanced states of the southern continent. Its literacy rating is low, and its per capita trade is lower. Once the leading exporter of cacao, it declined to seventh place during depression years, and it has never recovered.

Ever since breaking away from the Colombian Republic in 1830, Ecuador has been dogged by numerous troubles. There have been many political revolts at home, and there have been border disputes with Colombia and Peru. Those with Colombia have been fairly amiable, those with Peru somewhat serious. Both Peru and Ecuador lay claim to a large area of tropical



THE DISPUTED AREA BETWEEN ECUADOR AND PERU

lowlands to the east of the massive Andes mountain range. Virtually blocked off by the mountains, crisscrossed by only a few primitive trails, undeveloped, and populated by some 75,000 Indians, this is probably one of the most isolated regions in all South America.

Nearly two months ago, an Argentine newspaper warned that Axis agents were busily exploiting the Peru-Ecuador border dispute to stir up a war on the Pacific coast and take advantage of the confusion to carry out a political coup. Other capitals heard the same news. The United States, Argentina, and Brazil called upon both countries to settle their differences by arbitration. Ecuador agreed, but Peru accepted only with such stringent reservations that no progress was made in the matter.

Last week, the long-smoldering dispute flamed into a tropical war along the Trans-andean borders of Peru and Ecuador. Though the fighting has not yet been serious, feeling is high in both countries. Alert to the opportunities such confusion offers the Axis, the United States, Chile, Argentina, and Brazil have redoubled their efforts to settle the dispute by peaceable means.

Stalin Line

Having pushed through Russian Poland, Bessarabia, and the Baltic states, crossed the prewar frontiers of Russia and moved on to the east, last week German troops stalled before the main bastion of the Soviet defense system, the long fortified line which curves back and forth from the Baltic coast west of Leningrad, south to the Black Sea port of Odessa.

Like the French, the Finns, and the Greeks, the Soviets have a name for their fortified area—the Stalin Line. But unlike the ill-fated Maginot, Mannerheim, and Metaxas lines, the Stalin Line is not

a single rigid series of well-stocked, heavily gunned fortresses. It is not linked by underground railway and communication lines as was the Maginot Line. Such lines are formidable but brittle, and recent military experience has shown that once a breach is made, the whole line cracks and becomes practically worthless.

The word "line" is a misnomer when applied to the Soviet forts. The Russian bastion is less a line than a zone averaging 40 miles in depth, with variations running from 25 to 60 and even 100 miles across. The purpose of this system of defense is not to smash the mechanized blitzkrieg, but to bend backward before it like a spring, to slow it down, bring it to a halt, and then close in on all sides.

Very little is known about the Stalin Line outside the Kremlin and the Red Army. Tourists have never been allowed near it. Even engineers and dignitaries have been kept away. But on the basis of the best reports it is a masterpiece of concealment. Heavy guns are hidden under hillsides, in haystacks, under barns, and in cornfields. They are able to swivel in any direction and difficult to locate. What seem to be wells, scrapped automobiles, or piles of lumber, turn out to be machine gun and mortar nests. Roads leading eastward run into swamps and stop abruptly. Built to withstand the type of warfare used by the Nazis, the Stalin Line is now facing its supreme test.

Four-Year Toll

Last Monday, July 7, marked the fourth anniversary of the beginning of the Sino-Japanese war. Since a scattering of shots exchanged near Marco Polo Bridge in Peiping sent the Japanese military machine rolling over the wooded hills of North China, in 1937, China's losses have been extremely heavy. Half a million square miles of populous agricultural and industrial lands have fallen into Japanese hands, along with a population of 185,000,000 Chinese. The loss of perhaps 500,000 men this year has brought the grand war total up to 3,750,000 lives, more or less.

During this same period Japan is believed by neutral observers to have lost about 200,000 dead, and 25,000 prisoners. Chinese sources (which tend to exaggerate) claim 1,994,260 Japanese to have been killed or wounded, and the capture or destruction of 12,322 Japanese tanks and armored cars, 1,838 field guns, 7,888 machine guns, 2,054 planes, and 2,650 airmen.

Throughout the past year there has been considerable fighting along the straggling war front which wanders from the Mongolian border 2,700 miles down through China to the sea, broken in many places, uncertain in others. No less than 6,762 separate clashes have been recorded, with

several major offensives undertaken by both sides. Though China lost the port of Foochow, on the southeastern coast, and though Japanese forces were forced to withdraw in the far south, the lines have remained fairly stable all the year around. Neither side, seemingly, can muster sufficient strength to strike a crippling blow at the other, and with supplies still reaching China regularly from Malaysia, the United States, and Russia, no end to the war is yet in sight.

China's Kuomintang

Generalissimo Chiang Kai-shek has been confronted with many serious problems during the four years of war with Japan. There has been the purely military problem of fighting off the Japanese, the matter of ensuring the material support of other powers, and the complex problem of building and maintaining a financial, industrial, and agricultural system in western China. There has also been a fourth main problem, to which little attention has been paid by the foreign press—the problem of simple politics within China itself.

Although China is partially allied with the democracies and has, in fact, promised to become one when the war is over, her government is totalitarian in form. The one source of political power is the Kuomintang—the Revolutionary Party of China, founded in 1912 by Dr. Sun Yat-sen. The relation of the Kuomintang to China is identical with that of the Nazis to Germany, or the Communists to Russia. It is the state. No other party is permitted to exist (save communists in special areas). And Chiang, as the head of the Kuomintang, is the head of the army, and the leader of the Chinese nation.

While opposition is not tolerated from outside the Kuomintang, there has been considerable friction within the party itself during the past year. On one side there have been liberal Chinese who have desired a constitutional democratic form of government, insofar as war conditions allow it. This wing seemed well on the way to success, last fall, when a special constitutional assembly was called for November 12 to ratify a new constitution. The convention was never held, however, due to the opposition of antidemocratic groups within the Kuomintang.

Reports from Chungking (in particular those of Hugh Deane of the *Christian Science Monitor*) indicate that this antidemocratic wing is steadily gaining strength, and with it, the nucleus of a secret police



RETURN OF THE NATIVE

A French prisoner of war returns to his own town after having been released from a German internment camp in keeping with the accord between German and Vichy authorities. A white line was placed on the back of each captive by the Nazis as a prisoner identification mark. Although some prisoners are being released many French soldiers are still held in internment camps.

system and other totalitarian trappings. Chiang, to all appearances, is chiefly concerned with keeping peace within his party and holding off the Japanese, and his task is not growing any less difficult.

Arias of Panama

In taking upon itself the task of naming the 13 most important men in the world, a prominent Rio de Janeiro newspaper recently listed alongside the names of Churchill, Roosevelt, Hitler, and nine other heads of states, the name Arnulfo Arias, president of the Republic of Panama.

The importance of Arias stems from an extraordinary act of the Pan American conference at Havana, last year. This act empowers the president of Panama to call together representatives of the 21 American republics to confer on joint defense measures should a threat to the Western Hemisphere arise. This power was given to Panama partly for appearances' sake. Panama is centrally located between North and South America, and it is generally supposed to be under U. S. influence.

Arnulfo Arias, at the age of 38, is the youngest president in the world. Though he was educated in universities in this country, taking his medical degree at Harvard, and though he has had nothing but pleasant words from the United States since his inauguration, last October, U. S. officials have been watching his activities for the good part of a year. Tiring of his promising medical career 10 years ago, Arias launched suddenly into politics of a not too savory nature. His brother became president of Panama in 1932, and Arias moved from capital to capital around western Europe with the rank of minister. Returning to Panama, he developed a semi-military organization with several fascist trappings, and 17 days after becoming president, initiated a series of reforms which virtually established him as a dictator. Some Americans living in Panama have severely criticized President Arias since his inauguration, his actions, coupled with those of his followers, having been such as to leave doubts as to his real feelings toward the United States.

Finishing Touches

Although Addis Ababa, the Ethiopian capital, fell to British troops on April 6; and although Jimma, the last Italian stronghold in Ethiopia, suffered a similar fate at the beginning of this month, a total of about 14,000 Italian troops are still holding out in the northwest corner of the country, and along the southern border. The Italians have no hope of winning over the British, cut off and outnumbered as they are, but resistance is continuing for the purpose of keeping as many British troops occupied as possible, and thus preventing the dispatch of British reinforcements to Suez.

In the meantime, French forces in Syria appear to have become resigned to imminent defeat at the hands of the British. Two-thirds of the mandate still remained in French hands, last week, but so many key railway junctions, airports, and harbors had been taken or encircled by British and Free French forces that preparations were made for a withdrawal.



CHIANG KAI-SHEK



A GERMAN U-BOAT TAKES ON PROVISIONS

The Nazi censor passed this picture of German submarines being prepared to carry on their warfare against the shipping of Great Britain in the Battle of the Atlantic.



SIBERIA — THE VAST HINTERLAND OF SOVIET RUSSIA

Siberia—Vast Soviet Hinterland

(Concluded from page 1)

months of frost. Temperatures ranging from 40° to 70° below zero on a Fahrenheit thermometer are not infrequent. But the cold of the Siberian winters is a dry and not-uncomfortable cold, and the summers make up for their brief duration by the intensity of their heat. Then all Siberia blooms in a riot of flowers, melons, and berries. The crops, fanned by warm winds, grow like weeds.

Bounded by the rolling Urals on the west, by the high mountains of central Asia, and by the Amur River on the south, Siberia resembles a huge shelf of land tipped gently toward the north. Actually, it is two shelves, one low and one high. Its low shelf is made up of the vast grassy steppes of the west, which extend from the Urals to the Yenisei River. This is the most important region of Siberia, and we will come back to it later. Between the Yenisei and the Pacific is a wild, heavily forested tableland, cut by river valleys and two mountain ranges.

Railway Link

It was the building of the Transiberian Railway (begun in 1891) that tied this huge region into a single political unit and united it with Russia. As this railway passes across the western steppes, it is just a railroad crossing a great plain. But to the east, where the "Black Soil Belt" narrows, the people and towns cling to the railway. A few score miles north or south brings one to wilderness. To the south the steppes wither away into the dust bowls of central Asia. To the north, dark and silent, the Siberian forests roll back into the Arctic tundra.

A great diversity of races populates Siberia, some scattered remnants of ancient civilizations, some well known, some obscure. There are the Kirghiz, Tartars, Bashkirs, Sarts, Chuvashes, Uzbeks, Turkomans, Osmanli Turks, and there are Russians. The Russians, who now constitute a sizable majority of the region's 25,700,000 people, own the best lands. Their numbers are constantly being swelled by new arrivals—colonists, skilled workers, and political supervisors sent out from Moscow. So great has been the influx that the population has increased 146 per cent since 1914.

It was not until 1930—the third year of the first Five Year Plan—that the Soviets began to take an active interest in

Siberia. Previously they had treated it as the czarist government had treated it, as a source of furs, hides, fish, gold, and lumber, and as a penal colony for political malcontents. But conscious of the exposed position of the Ukraine, the Don basin mines and factories, and the oil fields of Baku, the Soviet government felt the need of a big reserve area of fuels and metals. Its surveyors and engineers, ranging the length and breadth of the Union, reported that a great untapped storehouse of metals and minerals extends from the Urals across the Siberian plains to Lake Baikal.

Plans for developing this region were embodied in the Second, and more particularly in the Third Five Year Plans, the Third running until 1942. The plan was to establish a great steel region around the newly created city of Magnitogorsk, in the southern Urals, and a big coal-producing region in the Kuznets (or Kuznetsk) Basin, 1,400 miles to the southeast, where 26,000,000 tons of coal lie beneath the surface. According to the plan, coal would be hauled by rail from Kuznets to Magnitogorsk, where it would be used for coking the blast furnaces. Rolling mills and smelters were also built in the Kuznets region, so the returning cars could carry iron ore—traffic in both directions thus being heavy, but with no waste of motion.

"Second Baku"

At the same time it was planned to establish a "Second Baku"—a reserve oil area just west of the Urals, near the Volga. This region was to lessen Soviet dependence on the Baku and Grozny oil regions of the Caucasus which together produced 85 per cent of all Soviet oil. Strictly speaking this region lies outside Siberia, on the European side of the Urals, but it is far enough inland to be treated as one of the Siberian reserve bases.

Ever since the Third Five Year Plan was put into operation in 1937, a heavy silence has hung over developments in Siberia. All the outside world has known has been that the Soviets have been very busy in the eastern region—building new plants, new railroad spurs, and opening new mines. From time to time there were vague rumors of failure, of sabotage and shootings in the east, the curtain would be lifted slightly for a brief interval, and then the silence would settle down again.

Only quite recently have there been any comprehensive surveys on the progress and present status of Soviet attempts to marshal the resources of Siberia and the western Ural region for just such an emergency as that which has now arisen. The best of these available to the general public is to be found in the July issue of *Fortune*, which contains an exhaustive survey of Soviet industry.

On the basis of the *Fortune* survey, it appears that the first estimates that one billion tons of iron ore or more were to be found in the Magnitogorsk region have been pared down to 446,000,000 tons, though the output of its steel mills has balanced the coal output of the Kuznets Basin, with which it is paired:

Lately, however, that balance was upset by the discovery that of the remaining iron-ore deposits at Magnitogorsk, scarcely one-fourth is of first-class quality. The great bulk has a higher sulphur content and only about 30 per cent iron, requiring crushing, flotation, and sintering processes which not only are costly but in turn require complex machinery that is not available. Consequently, when high quality deposits are exhausted—a none-too-remote prospect—Magnitogorsk will be obliged to import iron ore from the Krivoi Rog, in the Ukraine.

Fortunately for the Soviet this danger is not close enough to threaten the Magnitogorsk steel output unless the present war becomes extremely protracted, and it does not seem destined to injure the Soviet war effort. If it did, and the Nazis occupied the Ukraine in the meantime, the Magnitogorsk mills might find themselves starving for iron ore, and finding none, cease production. In the meantime, however, there has been trouble in the east, where

Kuznets failed to maintain sufficient coal production to supply Magnitogorsk, with the result that the latter was obliged to haul coal 1,600 kilometers from the Donets Basin. This situation was partially alleviated in 1939 with the completion of a new railroad to the Karaganda coal basin, which is nearer to Magnitogorsk than is Kuznets.

But here, then, is another danger. Magnitogorsk faces not only a possible iron ore shortage in the distant future, but an immediate shortage of coal in the event the Donets Basin falls into German hands. Thus it appears that the Soviet's secondary fuel-metal bases in the Urals-Siberian region are not as independent of European Russia as it was hoped they would be.

The attempts to establish a secondary oil region, the "Second Baku," between the Volga and the Urals, has been, if anything, less successful. The first of these oil wells were drilled with high hopes in 1929. By 1937 they were producing three per cent of the oil of the Soviet Union. The Third Five Year Plan looked to an increased output which would raise this percentage figure to 22 per cent by 1942, and up to 1939 the output increased rapidly. But then something went wrong—either because of faulty drilling, mishandling of the expensive drilling machinery, or poor organization—for the output then began to drop. Both salt and sulphur were discovered in the oil of this region—ingredients which American engineers and machinery could have taken care of. But by this time, the Soviet government had grown so distrustful of all foreigners that the few American engineers on the spot were being sent home, and the refineries, clogging with salt, had to be closed three days in every eight to permit cleanups.

These illustrate some of the worst problems facing the Soviets in the event they are forced to rely upon the output of the secondary industries and mines in the Siberian region. They are not the only ones. So badly needed a material as cement, for example, must be brought into Siberia from European Russia. Siberian houses may today contain furniture made from Siberian trees, but the lumber must be shipped to Russian factories, and returned by rail as finished products first.

Some Progress Made

This is not to say that the entire Third Five Year Plan, as it relates to the Urals and Siberia, has bogged down in the mire of inefficiency and bad planning. It is merely to say that progress along the main industrial fronts has been considerably slower than anticipated. But progress of a sort has been made nevertheless. It is to be seen particularly in the Soviet railroads which, despite many accidents, derailings, and losses of life, have stepped up the speed of their freight trains and increased the density of traffic per mile of line to a degree four times greater than that of the United States, according at least to Soviet official reports for last year.

In spite also of political purges and charges of sabotage, manufacturing plants have been built and put into operation in the Siberian region. Two shipbuilding plants on the upper reaches of the Ob and Lena Rivers put together small craft at points far beyond the range of German bombers. There are chemical plants, machine tool shops, foundries, textile mills, tractor and tank factories, and artificial rubber works dotting Siberia from the Urals to the Pacific. And there are no less than 367,000 tractors at work in the Siberian fields producing grains, cereals, sugar beets, and foodstuffs of many kinds.

But tractors demand oil—they consume 60 per cent of the fuel oil of the Soviet Union, and "Second Baku" does not produce a fraction of the needed quantity. Steel mills demand iron ore, and it is doubtful how long it can be secured in Siberia with existing equipment; and the big steel furnaces need more coal than they are now getting from Siberia alone. The factories are helpful, but there are too few of them; they are widely scattered, and entirely dependent upon the Transiberian Railway.

On the whole, it appears that the industrial structure of Siberia is too scattered, too loose, and too unwieldy to support a big Russian army and a vast increase in population as it stands today. But the Soviets have made a far better start on their inland industries than had the Chinese several years ago, and it is better even than the Chinese industries today—a factor which cannot be overlooked. If Russia is to hold out for long in the face of further German advances, she must depend to a growing extent on the rubber, oil, and tin she can import from British Malaysia, and on the machinery and tools she can bring across the Pacific from the United States. This, of course, brings up the position of Japan, which is still uncertain and which may have a profound effect upon Russia's ability to continue resistance.

The Failures and Successes of Our National Defense Program

(Concluded from page 1)

summer cannot possibly be ready before 1946, and it will not be ready even then unless our shipbuilding program is given precedence over Britain's in the meantime.

The chief trouble with our forces of land, sea, and air is that we have not produced for them the weapons, planes, and ships they require. The United States must arm two huge fighting machines—that of Britain as well as its own—and then continue to produce guns, ships, vehicles, and supplies in quantities sufficient to make good the tremendous wastage of war. Today production is only a trickle compared to the Niagara we need.

Bottlenecks

"Bottlenecks—I hate that word!" exclaimed William S. Knudsen, director of the Office of Production Management, not long ago. But it is a word which is repeated again and again in every discussion of the state of American defense industry. Why should the armed forces of the greatest industrial nation on earth be half-armed forces? Why should there be the ammunition shortage of which the President spoke some days ago? Why is it that we turned out fewer planes in May than we did in April, and fewer in June than in May? Why are we threatened with insufficiency of such vital materials as aluminum, steel, rubber, manganese, chromium, and tungsten? Our supplies of Russian manganese and chromium dwindled even before the German invasion of the Soviet Union, and tungsten, which comes largely from China, has a difficult time getting out through the Burma Road. But why were not large stock piles of these metals accumulated or other sources developed? A shortage of shipping is making it difficult to bring tin and rubber from the southeastern Pacific, and this difficulty will be enormously increased if we go to war with Japan. Why have we not built up our infant synthetic rubber industry and constructed smelters for processing the lower-grade tin of Bolivia?

It is easier to ask such questions than to answer them, but many answers, or partial answers, have been given. As for the lack of equipment from which the Army is now suffering, it should be remembered that it takes time to change industry over to arms production. The War Department never expected its troops to be fully armed before next spring, and the diversion to British use of nearly 75 per cent of the war materials we have produced has set the time back considerably. For delays in production, there are a number of explanations. Management blames strikers for wasting millions of man-days and accuses labor in certain plants of opposing extra shifts because

they cut down overtime pay. Government agencies complain that some factories are working at only a fifth of their theoretical capacity while others in the same industry are working at four-fifths capacity. Then, too, the shortage of skilled workers continues to be felt, especially in shipbuilding, plane-building, and the machine shops. In some cases as many as 40 or 50 jobs exist for every man qualified to fill them. But none of these explanations tell us why there are shortages of essential materials or why there seems to be confusion in administering the defense effort.

The most comprehensive criticism yet made of the whole program is that which was laid before Congress late last month by the Military Affairs Committee of the House of Representatives. The result of two months of secret hearings, the report was prepared by a subcommittee headed by Representative Charles I. Faddis, Democrat, of Pennsylvania, and the whole committee adopted it by a vote of 16 to 9 after strenuous opposition from administration supporters.

The report was not merely a partisan attack on the President. It criticized what it called the lack of vision of the administration, Congress, and the nation. While all three were absorbed in their struggle with economic depression, it said, "the pleas and programs of those who saw the gathering of the storm and the necessity for a rearmament plan went unheeded." "As a nation we seem to have forgotten that without national security social reform might well prove meaningless."

Five Failures

Five specific failures are laid at the door of the defense program by this report. The first of these is the "failure on the part of Congress, the administration, and the public to initiate a stock-pile program at an earlier date." The report uses aluminum as an example and criticizes the National Defense Advisory Commission and the Office of Production Management for failing to recommend the accumulation of an aluminum reserve.

The accumulation of rubber reserves, the report asserts, has been hindered by three factors: the attitude of the Straits-New York Shipping Conference in keeping non-conference ships from bringing the material to the United States; deliberate delay by "certain shipping interests," which apparently were waiting for higher rates to go into effect before they signed up; the failure of the Maritime Commission to do anything to remedy these situations.

The second "failure" is a point which has been harped upon by critics of the defense organization all through the past year: "Failure to entrust to a responsible



AMERICA'S FIRST ARMORED DIVISION

The First Armored Division recently took part in extensive maneuvers in central Tennessee. Tanks were used on a large scale for the first time.

head the full authority to carry out the will of Congress in the legislation enacted." Many commentators have said that President Roosevelt's desk is one of the worst bottlenecks in the whole system. Refusing to delegate any of his authority, they complain, the President has burdened himself with a mass of detail which threatens even his robust constitution and which no one man could ever handle efficiently. Says the report,

A lack of coordination and absence of a responsible head with authority and power to fix responsibility . . . have been largely responsible for the deficiencies we are now experiencing all along the line. The administration has been too prone when difficult problems arose to easily dispose of them by creating another board, only to add to the confusion of agencies we now have.

The other three "failures," also, have to do with delay:

Failure of a sense of urgency on the part of officials of purchasing organizations.

The delay in establishing conservation methods and the use of substitutes, for fear of creating unemployment.

Unwarranted delays in building plants and facilities for the conversion of raw materials into finished products.

All these may be aspects of the guns-and-butter policy which Knudsen favored for the opening stages of the defense program. He and the administration feared that a quick shift from peacetime production to war production would put millions out of work for from three months to a year and that before they could be returned to industry the country's morale might be seriously weakened. But the Military Affairs Committee's report points out that the automobile industry and other industries were allowed to consume enormous quantities of materials needed for defense.

Lag Held Inevitable

It is generally admitted, within the administration as well as out of it, that progress was slow during the first year of the program. But the same sort of lag—much worse in many respects—occurred in 1917 and 1918. When a nation's whole industrial life is being made over, there is bound to be lost motion and delay. And, though progress was slow in 1940-1941, there was progress—a great deal of it. In 12 months an Army of a quarter of a million became an Army of a million and a half, and 36 large camps sprang up to house it. In the same time a Navy which was already good became the world's best and continued to expand more rapidly than anyone had dared to hope. We commissioned 24 new destroyers and nine submarines large enough to cross the Pacific without refueling. Two powerful battleships were added to the fleet and a third launched, all of them well ahead of schedule.

In the same 12 months the foundation for the great "arsenal of democracy" was laid. It is made up of 32,750 factories, large and small, including 700 new giants run up in the past seven months. Since

most of the year was devoted to building plants and filling them with tools, advances in production were nothing like those anticipated in the second year. Many of them were certainly creditable, however.

The output of the semi-automatic Garand rifle, with which our entire infantry will one day be armed, rose from 6,500 a month to 22,500. Production of caliber-.50 machine guns jumped from 152 to 693 monthly, that of 37-millimeter antitank guns from four per month to 15, and that of 105-millimeter howitzers from zero to 22. A year ago we built 20 light tanks a month, and today the figure is 260. Military airplanes are being constructed nearly three times as fast as they were a year ago. Powder production is up 1,000 per cent.

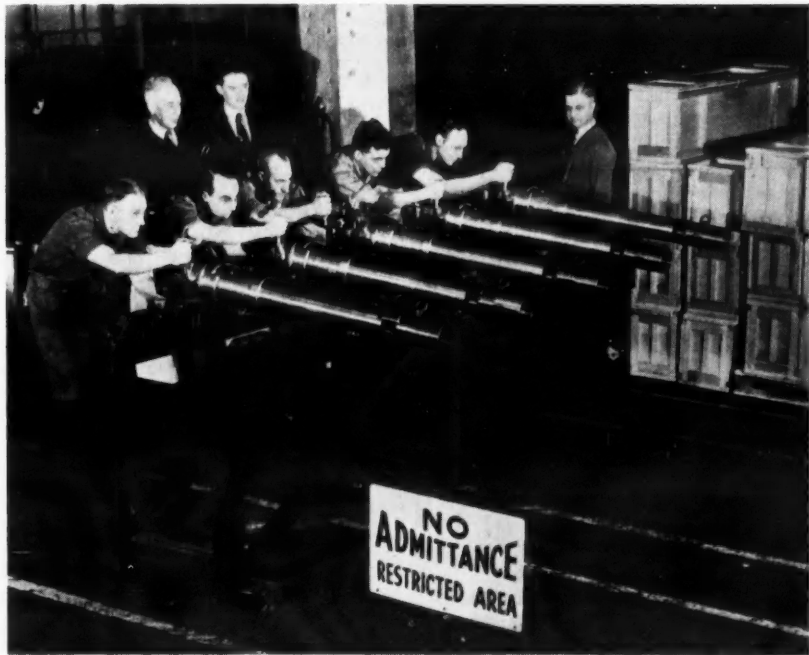
Encouraging Signs

Defense production as a whole is "on schedule or ahead," according to a survey recently completed by the National Association of Manufacturers. This survey reports that the machine-tool shortage, which has been one of the most difficult bottlenecks, is not nearly so acute as it once was. Its statement is borne out by an estimate from another source that the delivery of machine tools to defense plants now averages 1,000 a day.

The United States has made at least a bare beginning in arming itself, but if it is to press on at top speed changes in organization must be made from time to time. Already an important one is in prospect. It seems probable that the Office of Production Management will fade quietly into the background, to be replaced, not by some "czar" of production, but by a streamlined, more closely knit agency operating, perhaps, under the little-publicized Office of Emergency Management.

This move will not satisfy the critics who want one man made responsible for defense production. They ask President Roosevelt to profit by the example of the World War President. In 1916 President Wilson appointed a Council of National Defense to begin the mobilization of the country's resources. Three days after the United States declared war on Germany, he set up within this council a Munitions Board. But the Munitions Board was weak and unwieldy, and in July 1917, it was superseded by a War Industries Board, the raw-materials branch of which was headed by Bernard M. Baruch. The machinery continued to prove unsatisfactory, and on March 4, 1918, the board was given wider powers and Mr. Baruch was made its chairman. The arrangement was a great success.

To date, however, President Roosevelt seems to feel that he should not delegate vast powers to an individual if he can get results without doing so. But no one realizes better than he that the most important thing is to get results. The year 1941-1942 is likely to witness sweeping changes in the system which directs American defense production.



GUNS FOR UNCLE SAM

Workmen put five 75-millimeter howitzers through a final checkup before actual firing tests.

SINCE the Russo-German war began, booksellers have experienced unusually heavy demands for Count Leo Tolstoy's long novel *War and Peace*, which runs to 1,146 pages in the Modern Library edition which is quoted here, and deals at great length with life in Russia during Napoleon's invasion, his occupation and subsequent retreat from Moscow. Of particular interest at this time is his summary of the turning point of the war. It did not occur in battle, but in the silent streets and houses of Moscow:

Tattered, hungry, and exhausted, as they were, and dwindled to one-third their original numbers, the French soldiers yet entered Moscow in good discipline. It was a harassed and exhausted, yet still active and menacing army. But it was an army only up to the moment when the soldiers of the army dispersed all over town.

Moscow was without inhabitants, and the soldiers were sucked up into her like water into sand, as they flowed away irresistibly in all directions, from the Kremlin, which they had entered first. Cavalry soldiers, who had entered a merchant's house abandoned with all its belongings, and finding stabling for their horses and to spare, yet went on to take the house next door, which seemed to



Outside the walls of the Kremlin in Moscow

them better. Many took several houses, chalking their names on them, and quarreled and even fought with other companies for their possession. Soldiers had no sooner succeeded in securing quarters than they ran along the street to look at the town, and on hearing that everything had been abandoned, hurried off where objects of value could be carried off for nothing. The officers followed to check the soldiers, and were involuntarily lured into doing the same. In Carriage Row shops had been abandoned stocked with carriages, and the generals flocked thither to choose coaches and carriages for themselves. The few inhabitants who stayed invited the officers into their houses, hoping thereby to secure themselves against being robbed. Wealth there was in abundance: there seemed no end to it. Everywhere all around the parts occupied by the French there were unexplored regions unoccupied beyond, in which the French fancied there were even more riches to be found. And Moscow absorbed them further and further into herself. Just as when water flows over dry land, water and dry land alike disappear and are lost in mud, so when the hungry army entered the wealthy, deserted city, the army and the wealth of the city both perished; and fires and marauding bands sprang up where they had been. . . . When five weeks later these same men set out from Moscow, they no longer made up an army.

Thus a single Russian city absorbed and destroyed an army, and the road to Moscow, lined with thousands of nameless French graves, holds a warning to the conqueror whose reach exceeds his grasp.

Pictures by Air Waves

While television was making its bow with its first commercial programs, one of the New York stations moved its transmitters to the Metropolitan Museum of Art. Not yet ready to contract with sponsors for time and still operating on a test schedule, WCBW, owned by the Columbia Broadcasting System, put the first of a series of telecasts on art over the air. Television cameras were focused on famous masterpieces, bringing them into the homes of watching listeners, while a commentator told about the paintings and their artists.

During the program, the museum's director took a look into the future of television and commented on the changes which it will bring:

We are living in a visual age where the complexities of modern civilization have demanded a minimum of words and a maximum of images. Television will be the instrument which will create as complete a revolution in the education of the future as the discovery of movable type and the invention of the printing press 400 years ago.

We hope the day may not be far off when we can telecast our great treasures into every home and classroom of the nation. When that day is reached the visual senses of the American people will rival the "musical ear," which radio has done so much to develop.

News and Comment

Vargas of Brazil

John Gunther, well-known reporter and author on world affairs, calls Brazil's President Getulio Vargas "the most important political leader in Latin America." Gunther's comment, in the July *Reader's Digest*, on Vargas' dictatorial tendencies pictures his upbringing:

Reared in the heart of the southern cattle country, Getulio grew up with a lasso in his hands and a horse between his knees. His gaucho (cowboy) background has strongly colored his habits of mind, his friendships, and his political orientation. It is Brazil, not a horse, that is between his knees now, but Getulio is still a gaucho.

This ruler of 43 million people, who gained his power through a revolution, has mellowed considerably since his turbulent early days. He relishes the many jokes which are told about him, and makes no attempt to suppress the easygoing talk concerning him or his ways. More often than not, he is referred to as Getulio. About his appearance and manner Gunther says:

Vargas is the only smiling dictator. Even when one sees him off guard he is almost always smiling. He is one of the few dictators nicknamed by his own people. One nickname is Gigi. Another is Xuxu (a proliferating Brazilian weed). Friendly, chubby, rather gentle, he has virtually no enemies except on the extreme right and left, and he himself rarely bears grudges. While he is not a man of overwhelming mental capacity or moral grandeur, he has undoubted courage. He walks freely on the Rio streets and is probably the only dictator who never uses an armored car.

Of great interest to the United States are Brazil's policies toward a united Western Hemisphere defense. Gunther makes this estimate of the situation:

At present Vargas is Brazil, and Brazil is the most important country in Latin America from the standpoint of hemisphere defense. The Brazilian people are overwhelmingly pro-American, and Vargas himself is definitely not pro-German. All his instincts and sympathies are with the United States, not because the United States is a democracy, but because it is the great power that can help him most. By itself Brazil is virtually defenseless. A German-occupied Dakar would be only six hours distant by bomber.

Vargas has never directly committed himself on the question of United States bases in Brazil. But he collaborates closely with the U. S. military and naval missions which are now training Brazilian officers in coast defense. And he is smart enough to know this means that if we need Brazilian bases we will have them. It means, furthermore, that should we declare war on Germany now, Brazil would almost certainly follow suit at once.



GETULIO VARGAS

Army Chief

General George C. Marshall, Army chief of staff, continues to win admiration for his leadership of the Army. Public confidence in him stands at a high mark, and few criticisms have come his way.

Even the latest of these—a mild one—is as much a criticism of the Army's way of handling things as of the general himself. It has to do with the system of making promotions, whereby seniority more often prevails than not when men are being considered for higher ranks. Ability, in the opinion of many observers, should be the determining factor, rather than be outweighed by the length of service. According to the New York newspaper *PM*, Marshall himself shows the effects of this long-standing policy:

As much as a calm man, with a thoroughly collected nervous system, can, the General worries about this promotion problem. His intimates know that he would like to find a way of reaching down in the lists of brilliant regimental and technical officers; of making whole batches of new and younger generals—trying out the cream of the group, perhaps, in key spots in the high command. But the thought of what this might do to the morale

of the older officers—too good at their jobs to be retired, certainly too conscientious to deserve even a mild blot on their records—troubles him.

How and why should a man of such genuine professional progressiveness and with such extraordinary intellectual gifts for soldiering develop this hesitating touch in personnel management? The answer can be found more completely than anywhere else in the training and philosophy of the American officer.

The man who is charged with organizing the American Army to face the greatest perils in our history, has schooled himself for 40 years to regard the subordination of brilliance to seniority as the highest of personal and military virtues. He has kept the brilliance. He is intelligent. He is progressive. He is lucid, he has tact. But insofar as the Army is his world, he lacks—if he lacks anything—the inner drive of a man less drained of egoism to recreate it. It is another way of saying that the Army may have overtrained George Marshall in self-effacement.



GENERAL MARSHALL

Rubber Plantation

Henry Ford's efforts to grow rubber in Brazil, although rarely publicized, have not slackened. And according to an article in the July *Harpers*, some progress is being made. The type of tree which is receiving a great deal of attention is called the Hevea, which is a native of the Amazon region. The article describes it as "a graceful, poplarlike tree with bark about the color of wood ashes, shiny green leaves, small yellow tulip-shaped flowers, and podded seed." According to the writer, Hevea trees supply most of the world's natural rubber. The article goes on to tell about the science of rubber agriculture:

Once started, Hevea is an easy crop. Budding and tapping require skilled labor. Usually high-producing, disease-resistant trees are bud-grafted upon hardy scrub roots, much as apples are. Thus every Hevea farm requires a nursery and a more or less continuous routine of seeding, budding, replanting, and discarding. One healthy "parent tree" supplies enough buds to spread its strain over several hundred acres of orchard.

The harvest, or bleeding, is a matter of making spiraled cuts or wounds near the base of each tree trunk, cuts designed to feed the greatest possible amount of the milky latex into shallow aluminum cups which are clamped to the tree base. The tapper's knife must stay within paper thickness of its mark in order not to injure the tree.

A child can do the rest of the job. During the morning (sap flows best between dawn and mid-morning) the "tenders" make the round of trees, carry in the latex, spread it in open pans, and cover the layers of milky sap with a dilute solution of formic acid. By next morning the sap is coagulated so that the workers can wipe off the sheets and run them through one or more hand wringers. That reduces the sheets to the general appearance of badly worn Turkish towels. The final step is to hang the rags in a tight smokehouse, build a slow fire under them, and so smoke the rubber, just as one smokes ham or bacon. Drippings are collected as scrap rubber and the smoked sheets are wrapped in 200-pound bales ready for cash sale. During a long morning a good worker can carry in and set from 40 to 90 pounds of raw



PAN AMERICAN UNION
A Brazilian native taps a rubber tree



WIDE WORLD
Inventor Sikorsky in his helicopter

rubber. Rubber workers can supplement Hevea harvest with subsistence gardens and fields, and they can carpet the orchards with livestock feeds such as soybean and lespedeza.

Helicopters in War

Early in the history of the airplane, it occurred to experimenters that if a propeller can bore its way through the atmosphere, dragging a plane after it, a propeller placed on top of a machine should be able to lift the vehicle straight up into the air without any take-off run at all. The result of this speculation was the helicopter, which gets its name from two Greek words meaning "spiral" and "wing."

The famous plane designer, Igor Sikorsky, built unsuccessful helicopters in Russia before the World War, and now, at his plant near Bridgeport, Connecticut, he is working on an experimental model which has already established the helicopter world's record for sustained flight: 92½ minutes.

In the July *Infantry Journal*, Captain David L. Edwards passes on to us some thoughts that he and Major Sikorsky have had on the possible use of the helicopter in war. The present Sikorsky machine is a single-seater powered by an 80-horsepower engine, but the inventor foresees the building, in a year or two, of a helicopter capable of seating 10 men. The great advantage that such a machine would have over the plane is that it would be able to take off and land almost anywhere.

Since the helicopter is not dependent upon flying fields, it would be excellent for messenger work. Air infantrymen carried by it would not have to land by parachute, for their flying machine could descend wherever they needed to go. It might even be able to take them away again if the enemy made things too unpleasant. Helicopters might be used as air ambulances, too. Says Captain Edwards:

Weaknesses of the helicopter are apparent. It would have little or no value as a bomber. Bombers cannot afford to hover over their targets. Their tactics must be in-and-out tactics. But the greatest weakness is the comparatively slow speed of the helicopter. This limitation would prevent much use being made of it in situations when the enemy had a big advantage in the air. At the same time, no enemy in a major war can afford to keep enough planes in the air over an extended front to prevent the use of aircraft entirely. Many uses of the helicopter would require short flights with only a brief exposure to possible attack by fast airplanes. It may be, too, that if extensive helicopter development were to be undertaken, much higher speeds than those foreseen in the immediate future would be possible in a few years more.

Too Lazy; Too Late

(Concluded from page 1)

Greenland or from Siberia. Every link in the chain from Germany to the United States has been seen and many of them have been tested in the past two years.

Although the crushing impact of events since the Russo-German pact of 1939 has gradually roused public opinion in this country, the feeling of lazy security persists, softening the edge of national action. We are still fostering the illusion of not being in a war that we have been directly influencing. Without being neutral at heart or in fact, we cling to the forms of neutrality. . . . It is only with the greatest reluctance and in a spirit of national apology that many of us let defense preparations change the easy tenor of our normal ways. Our attitude toward the defense of democracy is almost that of doing a favor. Enough free people languidly hold back to give Hitler the driving advantages. "Too lazy and too late" may still be the feeble epitaph for our side.